

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of manufacturing a semiconductor device comprising the steps of:

forming a semiconductor film on an insulating surface;

crystallizing the semiconductor film by irradiation of a harmonic of a YVO₄ laser; patterning the crystallized semiconductor film to form a crystallized island-like semiconductor film; and

forming at least a channel region of a thin film transistor in the crystallized island-like semiconductor film.

2. (Original) A method of manufacturing a semiconductor device according to claim 1, wherein the semiconductor film is an amorphous semiconductor film or a micro crystal semiconductor film.

3. (Currently Amended) A method of manufacturing a semiconductor device according to claim 1, wherein the harmonic is one of a second harmonic, a third harmonic, and a fourth harmonic.

4. (Original) A method of manufacturing a semiconductor device comprising the steps of:

forming a semiconductor film on an insulating surface;

crystallizing the semiconductor film by irradiation of a continuous wave YVO₄ laser;

patterning the crystallized semiconductor film to form a crystallized island-like semiconductor film; and

forming at least a channel region of a thin film transistor in the crystallized island-like semiconductor film.

5. (Original) A method of manufacturing a semiconductor device according to claim 4, wherein the semiconductor film is an amorphous semiconductor film or a micro crystal semiconductor film.

6. (Currently Amended) A method of manufacturing a semiconductor device according to claim 4, wherein one of a second harmonic, a third harmonic, and a fourth harmonic of the continuous wave YVO₄ laser is irradiated to crystallize the semiconductor film.

7. (Original) A method of manufacturing a semiconductor device comprising the steps of:

forming a semiconductor film on an insulating surface;
crystallizing the semiconductor film by irradiation of linear laser light of a YVO₄ laser;

patterning the crystallized semiconductor film to form a crystallized island-like semiconductor film; and

forming at least a channel region of a thin film transistor in the crystallized island-like semiconductor film.

8. (Original) A method of manufacturing a semiconductor device according to claim 7, wherein the semiconductor film is an amorphous semiconductor film or a micro crystal semiconductor film.

9. (Currently Amended) A method of manufacturing a semiconductor device according to claim 7, wherein the linear laser light is one of a second harmonic, a third harmonic, and a fourth harmonic of the YVO₄ laser.

10. (Currently Amended) A method of manufacturing a semiconductor device comprising the steps of:

forming a semiconductor film on an insulating surface;

crystallizing the semiconductor film by irradiation of a harmonic of a continuous wave YVO₄ laser;

patterning the crystallized semiconductor film to form a crystallized island-like semiconductor film; and

forming at least a channel region of a thin film transistor in the crystallized island-like semiconductor film.

11. (Original) A method of manufacturing a semiconductor device according to claim 10, wherein the semiconductor film is an amorphous semiconductor film or a micro crystal semiconductor film.

12. (Currently Amended) A method of manufacturing a semiconductor device according to claim 10, wherein the harmonic is one of a second harmonic, a third harmonic, and a fourth harmonic.

13. (Currently Amended) A method of manufacturing a semiconductor device comprising the steps of:

forming a semiconductor film on an insulating surface;

patterning the semiconductor film to form an island-like semiconductor film;

crystallizing the island-like semiconductor film by irradiation of a harmonic of a YVO₄ laser; and

forming at least a channel region of a thin film transistor in the crystallized island-like semiconductor film.

14. (Original) A method of manufacturing a semiconductor device according to claim 13, wherein the semiconductor film is an amorphous semiconductor film or a micro crystal semiconductor film.

15. (Currently Amended) A method of manufacturing a semiconductor device according to claim 13, wherein the harmonic is one of a second harmonic, a third harmonic, and a fourth harmonic.

16. (Original) A method of manufacturing a semiconductor device comprising the steps of:

- forming a semiconductor film on an insulating surface;
- patterning the semiconductor film to form an island-like semiconductor film;
- crystallizing the island-like semiconductor film by irradiation of a continuous wave YVO₄ laser; and
- forming at least a channel region of a thin film transistor in the crystallized island-like semiconductor film.

17. (Original) A method of manufacturing a semiconductor device according to claim 16, wherein the semiconductor film is an amorphous semiconductor film or a micro crystal semiconductor film.

18. (Currently Amended) A method of manufacturing a semiconductor device according to claim 16, wherein one of a second harmonic, a third harmonic, and a fourth harmonic the continuous wave YVO₄ laser is irradiated to crystallize the island-like semiconductor film.

19. (Original) A method of manufacturing a semiconductor device comprising the steps of:

- forming a semiconductor film on an insulating surface;
- patterning the semiconductor film to form an island-like semiconductor film;
- crystallizing the island-like semiconductor film by irradiation of linear laser light of a YVO₄ laser; and
- forming at least a channel region of a thin film transistor in the crystallized island-like semiconductor film.

20. (Original) A method of manufacturing a semiconductor device according to claim 19, wherein the semiconductor film is an amorphous semiconductor film or a micro crystal semiconductor film.

21. (Currently Amended) A method of manufacturing a semiconductor device according to claim 19, wherein the linear laser light is one of a second harmonic, a third harmonic, and a fourth harmonic of the YVO_4 laser.

22. (Currently Amended) A method of manufacturing a semiconductor device comprising the steps of:

forming a semiconductor film on an insulating surface;

patterning the semiconductor film to form an island-like semiconductor film;

crystallizing the island-like semiconductor film by irradiation of a harmonic of a continuous wave YVO_4 laser; and

forming at least a channel region of a thin film transistor in the crystallized island-like semiconductor film.

23. (Original) A method of manufacturing a semiconductor device according to claim 22, wherein the semiconductor film is an amorphous semiconductor film or a micro crystal semiconductor film.

24. (Currently Amended) A method of manufacturing a semiconductor device according to claim 22, wherein the harmonic is one of a second harmonic, a third harmonic, and a fourth harmonic.

25. (Currently Amended) A method for manufacturing a semiconductor device comprising the steps of:

forming a semiconductor film on an insulating surface;

crystallizing the semiconductor film by irradiation of a harmonic of a YVO_4 laser;

patterning the crystallized semiconductor film to form a crystallized island-like semiconductor film; and

forming at least a channel region of a thin film transistor in the crystallized island-like semiconductor film,

wherein the harmonic of the YVO_4 laser has a shape at an irradiation surface which has an aspect ratio of 10 or more.

26. (Previously Presented) A method according to claims 25, wherein the semiconductor film is an amorphous semiconductor film or a micro crystal semiconductor film.

27. (Currently Amended) A method according to claim 25, wherein the harmonic is one of a second harmonic, a third harmonic, and a fourth harmonic.

28. (Currently Amended) A method for manufacturing a semiconductor device comprising the steps of:

forming an insulating film over a substrate;
forming a semiconductor film on the insulating film;
crystallizing the semiconductor film by irradiation of a harmonic of a YVO_4 laser;
patterning the crystallized semiconductor film to form a crystallized island-like semiconductor film; and

forming at least a channel region of a thin film transistor in the crystallized island-like semiconductor film,

wherein the insulating film comprises at least one material selected from the group consisting of silicon oxide, silicon oxynitride and silicon nitride.

29. (Previously Presented) A method according to claims 28, wherein the semiconductor film is an amorphous semiconductor film or a micro crystal semiconductor film.

30. (Currently Amended) A method according to claim 28, wherein the harmonic is one of a second harmonic, a third harmonic, and a fourth harmonic.

31. (Currently Amended) A method for manufacturing a semiconductor device comprising the steps of:

forming a semiconductor film on an insulating surface;
providing a crystallization promoting material with the semiconductor film;
crystallizing the semiconductor film by irradiation of a harmonic of a YVO₄ laser;
patterning the crystallized semiconductor film to form a crystallized island-like semiconductor film; and
forming at least a channel region of a thin film transistor in the crystallized island-like semiconductor film.

32. (Previously Presented) A method according to claims 31, wherein the semiconductor film is an amorphous semiconductor film or a micro crystal semiconductor film.

33. (Currently Amended) A method according to claim 31, wherein the harmonic is one of a second harmonic, a third harmonic, and a fourth harmonic.

34-36. (Canceled)

37. (Currently Amended) A method for manufacturing a semiconductor device comprising the steps of:

forming a semiconductor film on an insulating surface;
crystallizing the semiconductor film by irradiation of a harmonic of a solid laser comprising Nd;
patterning the crystallized semiconductor film to form a crystallized island-like semiconductor film; and
forming at least a channel region of a thin film transistor in the crystallized island-like semiconductor film,
wherein the harmonic of the YVO₄ solid laser has a shape which has an aspect ratio of 10 or more.

38. (Previously Presented) A method according to claims 37, wherein the semiconductor film is an amorphous semiconductor film or a micro crystal semiconductor film.

39. (Previously Presented) A method according to claim 37, wherein the harmonic is one of a second harmonic, a third harmonic, and a fourth harmonic.

40-45. (Canceled)